

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2003-NM-104-AD; Amendment 39-13698; AD 2004-13-16]**

**RIN 2120-AA64**

### **Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-135 and -145 Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), applicable to all EMBRAER Model EMB-135 and -145 series airplanes, that currently requires repetitive inspections of the engine thrust reverser stow/transit switches, and corrective action, if necessary. This amendment continues to require the existing requirements and identifies the installation of certain new transit switches, which constitutes terminating action for the repetitive inspections. This action also changes the applicability. The actions specified by this AD are intended to prevent erroneous signals in the Engine Indicating and Crew Alerting System (EICAS) caused by internal corrosion of the thrust reverser stow/transit switches, which could result in uncommanded loss of engine power in flight, or unnecessary aborted takeoffs on the ground.

**DATES:** Effective August 3, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 3, 2004.

The incorporation by reference of a certain other publication listed in the regulations was approved previously by the Director of the Federal Register as of September 5, 2001 (66 FR 43766, August 21, 2001).

**ADDRESSES:** The service information referenced in this AD may be obtained from Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343–CEP 12.225, Sao Jose dos Campos–SP, Brazil. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

*[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).*

**FOR FURTHER INFORMATION CONTACT:** Todd Thompson, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1175; fax (425) 227-1149.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2001-17-03, amendment 39-12394 (66 FR 43766, August 21, 2001) which is applicable to all Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-135 and -145 series airplanes, was published in the Federal Register on March 5, 2004 (69 FR 10360). The action proposed to require installation of certain new transit switches, which would constitute terminating action for the repetitive inspections of AD 2001-17-03. That action also proposed to reduce the applicability of AD 2001-17-03.

### **Editorial Change**

Paragraph (e)(2) of the proposed AD text erroneously states a replacement interval in terms of "hours" rather than "flight hours." We have corrected this error in the final rule. This change will neither increase the economic burden on any operator nor increase the scope of the AD.

### **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

### **Conclusion**

We have determined that air safety and the public interest require the adoption of the rule as proposed, with the editorial change described previously.

### **Cost Impact**

There are approximately 365 airplanes of U.S. registry that will be affected by this AD.

The actions that are currently required by AD 2001-17-03 and retained in this AD, take approximately 1 work hour per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the previously required actions on U.S. operators is estimated to be \$23,725, or \$65 per airplane.

The new actions that are required by this AD will take approximately 2 work hours per airplane to accomplish, at an average labor rate of \$65 per work hour. Required parts will cost approximately \$194 per airplane. Based on these figures, the cost impact of the new requirements of this AD on U.S. operators is estimated to be \$118,260, or \$324 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

## **Regulatory Impact**

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. Section 39.13 is amended by removing amendment 39-12394 (66 FR 43766, August 21, 2001), and by adding a new airworthiness directive (AD), amendment 39-13698, to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2004-13-16 Empresa Brasileira de Aeronautica S.A. (EMBRAER):** Amendment 39-13698.  
Docket 2003-NM-104-AD. Supersedes AD 2001-17-03, Amendment 39-12394.

**Applicability:** Model EMB-135BJ series airplanes, as listed in EMBRAER Service Bulletin 145LEG-78-0006, Revision 01, dated January 31, 2003; and Model EMB-135 and -145 series airplanes, as listed in EMBRAER Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003; certificated in any category.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent erroneous signals in the Engine Indicating and Crew Alerting System (EICAS) caused by internal corrosion of the thrust reverser stow/transit switches, which could result in uncommanded loss of engine power in flight, or unnecessary aborted takeoffs on the ground, accomplish the following:

## **Restatement of the Requirements of AD 2001-17-03**

### **Initial and Repetitive Inspections, and Corrective Action, if Necessary**

(a) For Model EMB-135 and -145 series airplanes: Prior to the accumulation of 2,000 total flight hours, or within 400 flight hours after September 5, 2001 (the effective date of AD 2001-17-03, amendment 39-12394), whichever occurs later, perform the inspection required by paragraph (b) of this AD and repeat the inspection at intervals not to exceed 1,200 flight hours.

(b) For Model EMB-135 and -145 series airplanes: Inspect each of the six stow/transit switches on the 1 and 2 engine thrust reversers by conducting a megohmmeter test to measure insulation resistance according to the Accomplishment Instructions of EMBRAER Service Bulletin 145-78-0029, dated February 2, 2001. If insulation resistance measures 100 megohms or less, before further flight, replace the switch with a new switch in accordance with the service bulletin.

### **Spares**

(c) For Model EMB-135 and -145 series airplanes: As of September 5, 2001, no person shall install, on any airplane, a stow/transit switch part number 83-990-137 or 83-990-152 unless it has been inspected in accordance with this AD.

## **New Actions Required by This AD**

### **Service Bulletin Reference**

(d) The term "service bulletin," as used in the remainder of this AD, means the Accomplishment Instructions of the following service bulletins, as applicable:

(1) For Model EMB-135BJ series airplanes: EMBRAER Service Bulletin 145LEG-78-0006, Revision 01, dated January 31, 2003; and

(2) For Model EMB-135 and -145 series airplanes: EMBRAER Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003.

### **Terminating Action**

(e) Install new transit switches having part number 83-990-168, on both engines of the airplane, at the time indicated in paragraph (e)(1) or (e)(2), as applicable, in accordance with the applicable service bulletin. Accomplishment of the new part installation constitutes terminating action for the inspections required by paragraph (a) of this AD.

(1) For airplanes on which the inspection required by paragraph (a) of this AD has been accomplished: Within 1,200 flight hours from the completion of the last inspection required by paragraph (a) of this AD, or within 400 flight hours after the effective date of this AD, whichever occurs later.

(2) For airplanes on which any inspection required by paragraph (a) of this AD has not been accomplished: Prior to the accumulation of 2,000 total flight hours, or within 400 flight hours after the effective date of this AD, whichever occurs later.

### **Actions Accomplished per Previous Issue of Service Bulletin**

(f) Installation of new transit switches having part number 83-990-168 on both engines of the airplane accomplished before the effective date of this AD, in accordance with EMBRAER Service Bulletin 145-78-0035, dated October 4, 2002; EMBRAER Service Bulletin 145-78-0035, Revision 01, dated December 11, 2002; or EMBRAER Service Bulletin 145LEG-78-0006, dated January 13, 2003; as applicable; is considered acceptable for compliance with the terminating action required by paragraph (e) of this AD.

### **Alternative Methods of Compliance**

(g) In accordance with 14 CFR 39.19, the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, is authorized to approve alternative methods of compliance for this AD.

### **Incorporation by Reference**

(h) Unless otherwise specified in this AD, the actions shall be done in accordance with EMBRAER Service Bulletin 145-78-0029, dated February 2, 2001; EMBRAER Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003; and EMBRAER Service Bulletin 145LEG-78-0006, Revision 01, dated January 31, 2003; as applicable. EMBRAER Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003, contains the following effective pages:

Page No.	Revision level shown on page	Date shown on page
1, 2	02	Jan. 31, 2003.
3-13	Original	Oct. 4, 2002.

EMBRAER Service Bulletin 145LEG-78-0006, Revision 01, dated January 31, 2003, contains the following effective pages:

Page No.	Revision level shown on page	Date shown on page
1, 2	01	Jan. 31, 2003.
3-13	Original	Jan. 13, 2003.

(1) The incorporation by reference of EMBRAER Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003; and EMBRAER Service Bulletin 145LEG-78-0006, Revision 01, dated January 31, 2003; is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of EMBRAER Service Bulletin 145-78-0029, dated February 2, 2001, was approved previously by the Director of the Federal Register as of September 5, 2001 (66 FR 43766, August 21, 2001).

(3) Copies may be obtained from Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343-CEP 12.225, Sao Jose dos Campos-SP, Brazil. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

**Note 1:** The subject of this AD is addressed in Brazilian airworthiness directive 2001-05-03R3, dated April 22, 2003.

## Effective Date

(i) This amendment becomes effective on August 3, 2004.

Issued in Renton, Washington, on June 16, 2004.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-14566 Filed 6-28-04; 8:45 am]

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